

32. A method executed by a computer under the control of a program, said computer including a memory for storing said program, said method comprising the steps of:

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- (A) receiving a protein backbone structure with variable residue positions;
 - (B) establishing a group of potential rotamers for each of said variable residue positions, wherein at least one variable residue position has rotamers from at least two different amino acid side chains;
 - (C) analyzing the interaction of each of said rotamers with all or part of the remainder of said protein backbone structure to generate a set of optimized protein sequences, wherein said analyzing step includes a Dead-End Elimination (DEE) computation; and
 - (D) identifying residues in at least one of said optimized protein sequences that differ from the starting backbone.--

REMARKS

Claim 1 has been cancelled. Support for new claims 28-32 is found in the specification at page 9, lines 10-17, and through out the examples. See for example, page 37, lines 19-20; page 39, lines 15-20; and page 44, line 15.

Attached hereto is a marked-up version of the changes made to the claims by the "Restriction and Amendment". The attached page is captioned **"Version with markings to show changes made."**

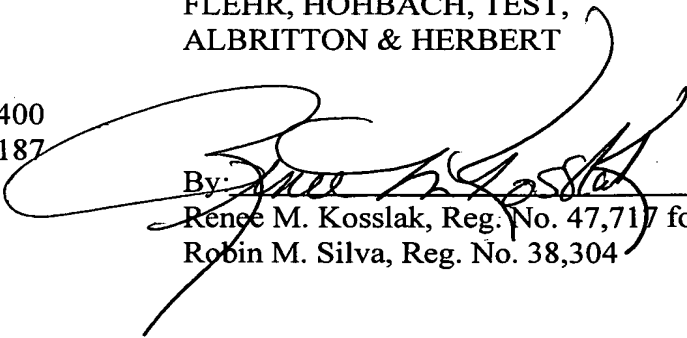
Please direct any calls in connection with this application to the undersigned at (415) 781-1989.

Dated: 1/25/02

Respectfully submitted,

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"VERSION WITH MARKINGS TO SHOW CHANGES MADE"

In the Specification:

The paragraph beginning at line 2 of page 1 has amended as follows:

This application is a continuing application of United States Serial No. 09/714,357, filed on November 15, 2000, which is a continuing application of 09/058,459, filed on April 10, 1998, which claims the benefit of the filing date of United States Serial Nos. [U.S.S.N.] 60/043,464, filed April 11, 1997, 60/054,678, filed August 4, 1997, and 60/061, filed October 3, 1997.

In the Claims:

Claim 1 has been cancelled.